From: ANDERSON Jim M
To: Eric Blischke/R10/USEPA/US@EPA
Subject: RE: CSM questions
Date: 04/06/2006 05:13 PM

Eric,
Yeah, I'm getting some input from Matt rite now & will send them to you tomorrow morning (4/7)

James M. Anderson
DEQ Northwest Region
Portland Harbor Section
Phone (503) 229-6825
Fax (503) 229-6899

-----Original Message-----
From: Blischke.Eric@epamail.epa.gov [mailto:Blischke.Eric@epamail.epa.gov]
Sent: Thursday, April 06, 2006 4:42 PM
To: ANDERSON Jim M
Subject: Fw: CSM questions

Jim, I am going to devlop a list of CSM questions for the LWG. I have EI's comments below and have some of my own. Do you have any?

Let me know. Thanks, Eric
----- Forwarded by Eric Blischke/R10/USEPA/US on 04/06/2006 04:41 PM -----

Jean Lee <jean.lee@eiltd.net>
04/04/2006 11:43 AM

To: Chip Humphrey/R10/USEPA/US@EPA, Eric Blischke/R10/USEPA/US@EPA, Jim Anderson <ANDERSON.Jim@deq.state.or.us>
cc:
Subject: CSM questions

Hi Chip, Eric and Jim,

Sorry for the delay. This is what Val and I could recall from the meeting and also some other ideas from subsequent discussions.

As described in the management goals for the site, we want a cost-effective cleanup that achieves protection of health and environment, including special status species and cultural resources. Objectives include a reduction of contamination in fish and in the habitat to levels that are healthy for the fish and protective of human uses. Therefore, we need some idea of the relative inputs to the system from different types of sources (on a mass basis) to frame an approach to cleanup and risk managment that is tailored to increase our chances of success. To date, we have a very heavy emphasis on sediment

chemistry in our data collection and conceptual focus for the RI,. That

said, we have not yet asked and answered questions that will help us understand whether the heavy focus on sediments in well placed or misplaced. A focus on sediments nearly exclusively as the major source for contamination in fish and risk generally may or may not be well placed. Whether or not it is well placed depends upon the relative important of sediments as a source of mass loading of contaminants as compared to other mass loadings on the system. As a result, we need to ask and answer some basic questions and include this refined conceptual thinking in our CSM. Key questions that we should address are as follows:

Do we have a sense of the magnitude of total mass loading on the system of risk driver contaminants?

What are the major contamination inputs on a mass basis into the study area -- stormwater, wastewater, study area sediments, groundwater and inputs from upstream? From a mass balance perspective, what is the relative importance of these inputs for producing tissue loads and fish and risk in general? What is the single largest source? What are the relative magnitudes of the other sources?

What is the relative significance of flux of clean groundwater through dirty sediment at various locations to other sources of contamination?

What is the water balance for the river? The hydrodynamic model has assumed that groundwater discharge inputs are low. Groundwater

discharge has been subsequently mapped and measured. This information should be compiled along with outfall information.

-Jean

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